



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	ASHKENAZI ET AL.	Examiner:	UNKNOWN
Serial No.:	10/686,887	Group Art Unit:	1645
Filed:	OCTOBER 15, 2003	Docket:	11669.78USC1
Confirmation No.:	8638	Customer No.:	23552
Title:	PROTEIN SECRETION		

CERTIFICATE UNDER 37 CFR 1.8:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on January 22, 2004.

By: 

Name: Sheryl A. Boerboom

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

23552

PATENT TRADEMARK OFFICE

Sir:

We are transmitting herewith the attached:

- ☒ Transmittal Sheet in duplicate containing Certificate of Mailing
- ☒ Information Disclosure Statement, Form 1449
- ☒ Return postcard

Please consider this a PETITION FOR EXTENSION OF TIME for a sufficient number of months to enter these papers or any future reply, if appropriate. Please charge any additional fees or credit overpayment to Deposit Account No. 13-2725. A duplicate of this sheet is enclosed.

MERCHANT & GOULD P.C.
P.O. Box 2903, Minneapolis, MN 55402-0903
612.332.5300

By: 

Name: Katherine M. Kowalchuk

Reg. No.: 36,848

KKowalchuk:sab



S/N 10/686,887

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	ASHKENAZI ET AL.	Examiner:	UNKNOWN
Serial No.:	10/686,887	Group Art Unit:	1645
Filed:	OCTOBER 15, 2003	Docket No.:	11669.78USC1
Confirmation No.:	8638	Customer No.:	23552
Title:	PROTEIN SECRETION		

CERTIFICATE UNDER 37 CFR 1.8:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on January 22, 2004.

By:

Name: Sheryl A. Boerboom

INFORMATION DISCLOSURE STATEMENT (37 C.F.R. § 1.97(b))

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted within three months of the filing date of the above-identified application, which is not an application under 37 C.F.R. § 1.53(d). Accordingly, no fee is due for consideration of the items listed on the enclosed Form 1449.

In accordance with 37 C.F.R. § 1.98(d), a copy of each document or other information listed on the enclosed Form 1449 is not provided because it was previously cited by or submitted to the U.S. Patent and Trademark Office in parent application, U.S. Serial No. 09/291,925 filed on April 14, 1999.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a

reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

Please charge any additional fees or credit any overpayment to Deposit Account No. 13-2725.

Respectfully submitted,

MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, Minnesota 55402-0903
(612) 332-5300


Date:

Jan. 22, 2004

Katherine M. Kowalchuk
Katherine M. Kowalchuk
Reg. No. 36,848
KMK:sab

23552

PATENT TRADEMARK OFFICE

FORM 1449*  INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number: 11669.78USC1	Application Number: 10/686,887
	Applicant: ASHKENAZI ET AL.	
	Filing Date: OCT. 15, 2003	Group Art Unit: 8638

U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	4,766,075	08/23/1988	Goeddel et al.			
	4,795,706	01/03/1989	Hsiung et al.			
	5,037,743	08/06/1991	Welch et al.			
	5,225,537	07/06/1993	Foster			
	5,565,335	10/15/1996	Capon et al.			
	5,641,612	03/25/1997	Haigwood et al.			
	5,641,655	06/06/1997	Foster et al.			
	5,653,985	08/05/1997	Haigwood et al.			
	5,565,335	10/15/1996	Capon et al.			
	5,696,238	12/09/1997	Haigwood et al.			
	5,702,938	12/30/1997	Haigwood et al.			
	5,880,268	03/09/1999	Gallatin et al.			

FOREIGN PATENT DOCUMENTS							
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	356,409	02/28/1990	EP				
	92/04444	03/19/1992	PCT				
	96/17067	06/06/1996	PCT				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)	
	Alexander and Elder, "Carbohydrate dramatically influences immune reactivity of antisera to viral glycoprotein antigens," <u>Science</u> , 226(4680):1328-1330 (Dec. 14, 1984)
	Aruffo et al., "CD44 is the Principal Cell Surface Receptor for Hyaluronate", <u>Cell</u> , 61:1303-1313 (June 29, 1990)
	Ashkenazi et al., "Protection Against Endotoxic Shock by a Tumor Necrosis Factor Receptor Immunoconjugate," <u>Proc. Natl. Acad. Sci. USA</u> , 88 pp. 10535-10539 (1991)
	Ashwell and Harford, "Carbohydrate-specific receptors of the liver," <u>Annual Review of Biochemistry</u> , 51:531-554 (1982)
	Ashwell and Morrell, "The role of surface carbohydrates in the hepatic recognition and transport of circulating glycoproteins", <u>Advances in Enzymology</u> , 41:99-128 (1974)
	Bennett et al., "Extracellular Domain-IgG Fusion Proteins for Three Human Natriuretic Peptide Receptors. Hormone

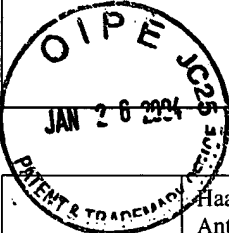
EXAMINER	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	

FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number: 11669.78USC1	Application Number: 10/686,887
	Applicant: ASHKENAZI ET AL.	
	Filing Date: OCT. 15, 2003	Group Art Unit: 8638

	Pharmacology and Application to Solid Phase Screening of Synthetic Peptide Antisera," <u>The Journal of Biological Chemistry</u> , 266(34):23060-23067 (Dec. 5, 1991)
	Berg and Grinnell, "Signal and propeptide processing of human tissue plasminogen activator: activity of a pro-tPA derivative", <u>Biochemical and Biophysical Research Communications</u> , 179(3):1289-1296 (Sept. 30, 1991)
	Berman et al., "Engineering Glycoproteins for Use as Pharmaceuticals," <u>Trends in Biotechnology</u> , 3(2):51-53 (February 1985)
	Berman et al., "Expression and Immunogenicity of the Extracellular Domain of the Human Immunodeficiency Virus Type 1 Envelope Glycoprotein, gp160", <u>Journal of Virology</u> , 63(8):3489-3498 (1989)
	Brandli, A.W., "Mammalian glycosylation mutants as tools for the analysis and reconstitution of protein transport," <u>Biochemical Journal</u> , 276:1-12 (1991)
	Brousseau et al., "Influence of Tissue Plasminogen Activator (tPA) Propeptide on Recombinant TNF α -IgG1 Expression," <u>Abstracts of Papers American Chemical Society</u> (abstract no. 055, presented at the 217th ACS National Meeting held in Anaheim, CA on March 21-25, 1999), 217(1-2):BIOT 055 (1999)
	Bryn et al., "Biological Properties of a CD4 Immunoadesin," <u>Nature</u> , 344:667-670 (April 12, 1990)
	Capon et al., "Designing CD4 Immunadhesins for AIDS Therapy," <u>Nature</u> , 337:525-531 (February 9, 1989)
	Caton et al., "The antigenic structure of the influenza virus A/PR/8/34 hemagglutinin (HI subtype)," <u>Cell</u> , 31 (2 Pt 1):417-427 (Dec. 1982)
	Chalupny et al., "T-cell activation molecular 4-1BB binds to extracellular matrix proteins," <u>Proc. Natl. Acad. Sci., USA</u> , 89(21):10360-10364 (Nov. 1, 1992)
	Claffrey et al., "Structural requirements for dimerization, glycosylation, secretion, and biological function of VPF/VEGF," <u>Biochimica et Biophysica Acta</u> , 1246(1):1-9 (Jan. 5, 1995)
	Collier et al., "Specific glycosylation site mutations of the insulin receptor α -subunit impair intracellular transport," <u>Biochemistry</u> , 32(30):7818-7823 (Aug. 3, 1993)
	Culp et al., "Regulated expression allows high level production and secretion of HIV-1 gp120 envelope glycoprotein in Drosophila Schneider cells," <u>Bio/Technology</u> , 9(2):173-177 (Feb. 1991)
	Dorner et al., "The relationship of N-linked glycosylation and heavy chain-binding protein association with the secretion of glycoproteins," <u>Journal of Cell Biology</u> , 105(6 Pt 1):2665-2674 (Dec. 1987)
	Dube et al., "Glycosylation at specific sites of erythropoietin is essential for biosynthesis, secretion, and biological function," <u>Journal of Biological Chemistry</u> , 263(33):17516-17521 (Nov. 25, 1988)
	Feng et al., "The structure of the TATA-less rat tissue-type plasminogen activator gene. Species-specific sequence divergences in the promoter predict differences in regulation of gene expression," <u>Journal of Biological Chemistry</u> , 265(4):2022-2027 (Feb. 5, 1990)
	Fiedler and Simons, "The role of N-glycans in the secretory pathway," <u>Cell</u> , 81(3):309-312 (May 5, 1995)
	Flack et al., "Site-directed mutagenesis defines the individual roles of the glycosylation sites on follicle-stimulating hormone," <u>Journal of Biological Chemistry</u> , 269(19):14015-14020 (May 13, 1994)
	Gallagher et al., "Glycosylation requirements for intracellular transport and function of the hemagglutinin of influenza virus," <u>Journal of Virology</u> , 66(12):7136-7145 (Dec. 1992)
	Gray et al., "Cloning of human tumor necrosis factor (TNF) receptor cDNA and expression of recombinant soluble TNF-binding receptor," <u>Proc. Natl. Acad. Sci. USA</u> , 87(19):7380-7384 (Oct. 1990)

EXAMINER	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	

FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number: 11669.78USC1	Application Number: 10/686,887
	Applicant: ASHKENAZI ET AL.	
	Filing Date: OCT. 15, 2003	Group Art Unit: 8638



	Haak-Frendscho et al., "Inhibition of TNF by a TNF Receptor Immunoaderin. Comparison to an Anti-TNF Monoclonal Antibody," <u>Journal of Immunology</u> , 152:1347-1353 (1994)
	Helenius A., "How N-linked oligosaccharides affect glycoprotein folding in the endoplasmic reticulum," <u>Molecular Biology of the Cell</u> , 5(3):253-265 (March 1994)
	Kery et al., "Ligand recognition by purified human mannose receptor," <u>Archives of Biochemistry & Biophysics</u> , 298(1):49-55 (Oct. 1992)
	Kitaguchi et al., "Enzyme specificity of proteinase inhibitor region in amyloid precursor protein of Alzheimer's disease: different properties compared with protease nexin I," <u>Biochimica et Biophysica Acta</u> , 1038 (1):105-113 (1990)
	Kohno et al., "A second tumor necrosis factor receptor gene product can shed a naturally occurring tumor necrosis factor inhibitor," <u>Proc. Natl. Acad. Sci. USA</u> , 87:8331-8335 (1990)
	Kornfeld et al., "Assembly of Asparagine-linked Oligosaccharides", <u>Ann. Rev. Biochem.</u> , 54:631-664 (1985)
	Krasney and Young, "Further aspects of IL-1 β secretion revealed by transfected monkey kidney cells," <u>Cytokine</u> , 4(2):134-143 (March 1992)
	Kurschner et al., "Construction, purification, and characterization of new interferon γ (IFN γ) inhibitor proteins. Three IFN γ receptor-immunoglobulin hybrid molecules," <u>Journal of Biological Chemistry</u> , 267(13):9354-9360 (May 5, 1992)
	Lasky et al., "Neutralization of the AIDS Retrovirus by Antibodies to a Recombinant Envelope Glycoprotein," <u>Science</u> , 233:209-212 (1986)
	Lesslauer, "Recombinant Soluble Tumor Necrosis Factor Receptor Proteins Protect Mice From Lipopolysaccharide-induced lethality," <u>European Journal of Immunology</u> , 21:2883-2886 (1991)
	Leung, et al., "Engineering a Unique Glycosylation Site for Site-Specific Conjugation of Haptens to Antibody Fragments," <u>The Journal of Immunology</u> , Vol. 154: 5919-5926 (1995)
	Li et al., "Effects of inefficient cleavage of the signal sequence of HIV-1 gp120 on its association with calnexin, folding, and intracellular transport," <u>Proc. Natl. Acad. Sci. USA</u> , 93(18):9606-9611 (Sept. 3, 1996)
	Linsley et al., "Binding of the B Cell Activation Antigen B7 to CD28 Costimulates T Cell Proliferation and Interleukin 2 mRNA Accumulation," <u>Journal of Experimental Medicine</u> , 173:721-730 (1991)
	Linsley et al., "CTLA-4 is a second receptor for the B cell activation antigen B7," <u>Journal of Experimental Medicine</u> , 174:561-569 (1991)
	Machamer and Rose, "Vesicular Stomatitis Virus G Proteins with Altered Glycosylation Sites Display Temperature-Sensitive Intracellular Transport and Are Subject to Aberrant Intermolecular Disulfide Bonding," <u>Journal of Biological Chemistry</u> , 263(12):5955-5960 (1988)
	Melcher, et al., "Increased Elongation Of N-Acetylglucosamine Repeats In Doubly Glycosylated Lysozyme With A Particular Spacing Of The Glycosylation Sites," <u>Glycoconjugate Journal</u> , Vol. 15: 987-993 (1998)
	Mohler et al., "Soluble tumor necrosis factor (TNF) receptors are effective therapeutic agents in lethal endotoxemia and function simultaneously as both TNF carriers and TNF antagonists," <u>Journal of Immunology</u> , 151(3):1548-1561 (Aug. 1, 1993)
	Nelles et al., "Characterization of a Fusion Protein Consisting of Amino Acids 1 to 263 of Tissue-type Plasminogen Activator and Amino Acids 144 to 411 of Urokinase-type Plasminogen Activator," <u>Journal of Biological Chemistry</u> , (262(22):10855-10862 (Aug. 5, 1987)
	Olden et al., "Role of carbohydrates in protein secretion and turnover: effects of tunicamycin on the major cell surface glycoprotein of chick embryo fibroblasts," <u>Cell</u> , 13(3):461-473 (March 1978)

EXAMINER	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	

FORM 1449 JAN 26 2004 PATENT & TRADEMARK OFFICE	INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	
	Docket Number: 11669.78USC1	Application Number: 10/686,887
	Applicant: ASHKENAZI ET AL.	
	Filing Date: OCT. 15, 2003	Group Art Unit: 8638

	Ong and Kern, "The role of glucose and glycosylation in the regulation of lipoprotein lipase synthesis and secretion in rat adipocytes," <u>Journal of Biological Chemistry</u> , 264(6):3177-3182 (Feb. 25, 1989)
	Peppel et al., "A Tumor Necrosis Factor (TNF) Receptor-IgG Heavy Chain Chimeric Protein as a Bivalent Antagonist of TNF Activity," <u>Journal of Experimental Medicine</u> , 174:1483-1489 (1991)
	Rademacher et al., "Glycobiology," <u>Ann. Rev. Biochem.</u> , 57:785-838 (1988)
	Rhodes et al., "Expression, characterization and purification of simian immunodeficiency virus soluble, oligomerized gp160 from mammalian cells," <u>Journal of General Virology</u> , 75 (Pt 1):207-213 (Jan. 1994)
	Rickles et al., "Molecular Cloning of Complementary DNA to Mouse Tissue Plasminogen Activator mRNA and Its Expression During F9 Teratocarcinoma Cell Differentiation," <u>Journal of Biological Chemistry</u> , 263(3):1563-1569 (1988)
	Ridgway et al., "Expression and Activity of IgE Receptor Alpha Chain-IgG Chimeric Molecules," <u>Journal of Cell Biology</u> , 115:250a (Abstract No. 1448) (1991)
	*Sato et al., "The conformation of mature human α -amylase conditions its secretion from yeast," <u>Gene</u> , 63:355-365 (1989)
	Stamenkovic et al., "The B Lymphocyte Adhesion Molecule CD22 Interacts with Leukocyte Common Antigen CD45R0 on T Cells and α 2-6 Sialyltransferase, CD75, on B Cells," <u>Cell</u> , 66:1133-1144 (Sept. 20, 1991)
	Stockert, R., "The asialoglycoprotein receptor: relationships between structure, function, and expression," <u>Physiological Reviews</u> , 75(3):591-609 (July 1995)
	Trauneker et al., "Highly Efficient Neutralization of HIV with Recombinant CD4-Immunoglobulin Molecules," <u>Nature</u> , 339:68-70 (1989)
	Watson et al., "A Homing Receptor-IgG Chimera as a Probe for Adhesive Ligands of Lymph Node High Endothelial Venules," <u>Journal of Cell Biology</u> , 110:2221-2229 (1990)
	Watson et al., "Neutrophil Influx into an Inflammatory Site Inhibited by a Soluble Homing Receptor-IgG Chimera," <u>Nature</u> , 149:164-167 (1991)
	Zhang, et al., "Distinct Patterns of Folding and Interactions with Calnexin and Calreticulin in Human Class I MHC Proteins with Altered N-Glycosylation," <u>The Journal of Immunology</u> , Vol. 160: 831-837 (1998)
	Copy of International Search Report dated July 26, 1999

23552

PATENT TRADEMARK OFFICE

EXAMINER	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	